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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,616	07/24/2001	Vladimir Segal	30-5004 DIV3	6002

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EXAMINER

WILKINS III, HARRY D

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 12/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/912,616	SEGAL ET AL.	
	Examiner	Art Unit	
	Harry D Wilkins, III	1742	

-- The MAILING DATE of this communication appears in the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 37-54 are pending.
2. The rejection under 35 USC 112, 2nd paragraph has been withdrawn in view of Applicant's comments filed 12 November 2002.
3. The rejections under 35 USC 102 based on Lo et al, Thornburg et al, Watanabe et al, Meeks, III et al, Zhang, Koike and Kawamata et al have been withdrawn in view of the amendment of claims 37-39.
4. New grounds of rejection are presented below.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 37 and 39-47 rejected under 35 U.S.C. 102(e) as being anticipated by Torizuka et al (US 6,221,178).

Torizuka et al anticipate the invention as claimed. Torizuka et al teach (see abstract) an alloy that has randomly oriented grains (i.e.-a random microstructure).

From Figure 8, it can be seen that the alloy has substantially uniform grain size.

Torizuka et al teach (see col 6, lines 42-46) that the alloy *may* have precipitates,

therefore, when the precipitates are not present the alloy has a substantial absence of precipitates.

Regarding claim 39, from Figure 11, it can be seen that the alloy of Torizuka et al has a substantially random texture. Torizuka et al teach (see abstract) that the alloy has a mean grain size of $3.0\text{ }\mu\text{m}$ or less. The limitation in present claim 39, "the alloy comprising a fine grain size of less than about 1 micron", is interpreted to mean that at least one of the grains in the alloy is less than about 1 micron in size. The disclosed "mean grain size of not larger than $3.0\text{ }\mu\text{m}$ " of Torizuka et al is deemed to inherently include at least one grain with size less than about 1 micron.

Regarding claims 40 and 44, Torizuka et al teach (see col 2, lines 57-59) that the alloy contains Al.

Regarding claim 41, the present claims are product-by-process claims, and any reference which discloses the claimed product, anticipates the claimed regardless of how it was produced.

Regarding claims 42 and 45, because the alloy of Torizuka et al is described as being random, one of ordinary skill in the art would have expected the alloy to inherently possess an orientation distribution function (ODF) of less than 7000 mrd.

Regarding claim 43, one of ordinary skill in the art would have expected the uniformly distributed precipitates of Torizuka et al to inherently have an average diameter of less than 0.5 microns.

Regarding claim 46, the range of grain size disclosed by Torizuka et al (see abstract, $3.0\text{ }\mu\text{m}$ or less) includes the claimed range. One of ordinary skill in the art

would have expected the alloy of Torizuka et al to inherently contain small grain sizes of less than about 1 micron.

Regarding claim 47, as can be seen in Figure 8, Torizuka et al teach that the alloy grains are equiaxed.

7. Claims 38, 48, 49, 51, 53 and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Goto et al (US 4,517,032).

Goto et al anticipate the invention as claimed. Goto et al teach (see col 7, lines 6-33) an alloy with a strong texture and containing uniformly distributed precipitates.

Regarding claims 48 and 49, Goto et al teach (see col 8, lines 57-62) that the precipitates have sizes in the range of 100-500 Å (0.1-0.5 microns).

Regarding claim 51, the present claims are product-by-process claims, and any reference which discloses the claimed product, anticipates the claimed regardless of how it was produced.

Regarding claims 53 and 54, because the alloy of Goto et al is described as having a strong texture, one of ordinary skill in the art would have expected the alloy to inherently possess the ODF of between 10,000 and 20,000 mrd or greater than or equal to 20,000 mrd as claimed.

8. Claims 38, 51, 52, 53 and 54 rejected under 35 U.S.C. 102(b) as being anticipated by Lally et al (US 5,772,795).

Lally et al anticipate the invention as claimed. Lally et al teach (see col 6, lines 2-5, 8-10 and 36-40) an alloy with a strong (111) texture with precipitates uniformly dispersed therein.

Regarding claim 51, the present claims are product-by-process claims, and any reference which discloses the claimed product, anticipates the claimed regardless of how it was produced.

Regarding claim 52, Lally et al teach (see Table 1, col 11) that the alloy contain Al, Cu and Mo.

Regarding claims 53 and 54, because the alloy of Lally et al is described as having a strong texture, one of ordinary skill in the art would have expected the alloy to inherently possess the ODF of between 10,000 and 20,000 mrd or greater than or equal to 20,000 mrd as claimed.

9. Claims 38, 48 and 51-54 are rejected under 35 U.S.C. 102(b) as being anticipated by Dunlop et al (US 5,780,755).

Dunlop et al anticipate the invention as claimed. Dunlop et al teach (see col 9, lines 1-13) an alloy with strong <220> or strong <200> texture. Dunlop et al teach (see claims 2 and 4) that the alloy contains precipitates dispersed uniformly in the alloy.

Regarding claim 48, Dunlop et al teach (see claim 2) that the precipitates have a size of less than 1 micron.

Regarding claim 51, the present claims are product-by-process claims, and any reference which discloses the claimed product, anticipates the claimed regardless of how it was produced.

Regarding claim 52, Dunlop et al teach (see claims 1 and 3) an alloy containing Al and at least one of Cu, Ta, Mo, Au and Pt.

Regarding claims 53 and 54, because the alloy of Dunlop et al is described as having a strong texture (see col 9, lines 9-13), one of ordinary skill in the art would have expected the alloy to inherently possess the ODF of between 10,000 and 20,000 mrd or greater than or equal to 20,000 mrd as claimed.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goto et al (US 4,517,032).

The teachings of Goto et al are described above in paragraph no. 7.

Goto et al fail to meet the claimed range of the average precipitate diameter of less than 0.1 microns.

However, Goto et al teach that the precipitates can be as small as 0.1 microns (100 Å). The claimed composition range of less than 0.1 microns would have been obvious to one of ordinary skill in the art because the prior art range is close enough, e.g.- 0.1 microns vs. 0.09999 microns, that it would have been expected to have the same properties, see MPEP 2144.05.

Response to Arguments

12. Applicant's arguments with respect to claims 37-39 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry D Wilkins, III whose telephone number is 703-305-9927. The examiner can normally be reached on M-F 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V King can be reached on 703-308-1146. The fax phone numbers for

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the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Harry D Wilkins, III
Examiner
Art Unit 1742

hdw
December 4, 2002

ROY KING 
SUPERVISORY PATENT EXAMINER
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